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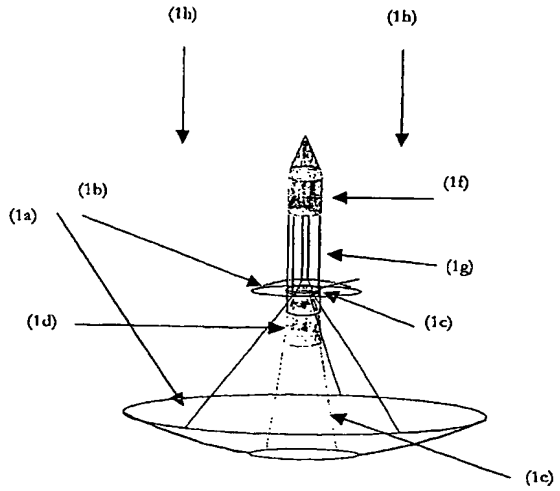
(54) Title: OPTICAL IMAGING DEVICE DESIGNS FOR SOLAR-POWERED FLIGHT AND POWERGENERATION



(57) Abstract: The invention provides a lightweight high numerical aperture imaging device (1) comprising two rotationally symmetric curved mirrors (1a), (1b), which can be combined with various other components to facilitate solar-powered flight (including via direct deflection of sunlight (2c), in a manner akin to a solar sail or via solar thermal propulsion (1c)), to facilitate terrestrial power generation, and other uses for high numerical aperture imaging devices, including, for example, achieving very high concentrations of light or other sorts of wave (or other sorts of physical entities that satisfy equivalent "ballistic" equations of motion), or being used in reverse to form a beam that has a small angle spread, producing super-resolving optical systems (for. example for photolithographic purposes) or facilitating interlinking of communication network components. A detailed method for designing such a device is also disclosed.

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